KANSAS MEDICAL JOURNAL.

VOL. IX. TOPEKA, KANSAS, SATURDAY, MARCH 6, 1897. No. 10.

ORIGINAL ARTICLES.

Epidemic Influenza (Catarrhal Fever in Children).

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Reprinted From The Philadelphia Polyclinic.

In the last few years, epidemic influenza has obtruded itself as a very important disorder in most civilized countries, and is to be found intermittently in nearly all parts of the United States. None of the infectious diseases deserves more prompt and intelligent management both in the prophylaxis and in treatment. Complications and sequelæ demand the most careful and protracted attention. The fact that the infection attacks very young children with great readiness, that one attack cannot be said to protect against another, and that the prostration is out of all proportion to the obvious organic disturbance, makes it a disorder which calls for the utmost persistence and positiveness at the hands of the medical adviser. Epidemic influenza may be described as an infectious disease, attended by profound weakness and serious catarrhal disturbance of the respiratory or gastro-intestinal organs and many distressing and dangerous nervous phenomena. There is no distinctive type of infantile influenza, but it complicates some diseases, and appears to be antagonistic to others, notably, scarlatina and diphtheria. Scarlatina seems to have been subdued by it into a very mild form. With diphtheria, it is apparently never associated, although influenza is frequently accompanied by a form of sore throat, with yellow, pulpy deposit in large masses, closely resembling diphtheria, but in this is not to be found the Klebs-Loeffler bacillus, and it disappears promptly upon treatment, even by local measures only. In the character of their tonic influence diphtheria and influenza has many points of similiarity; the extreme depression, slowness of recovery and susceptibility of nervous tissues mark them as much alike; so, also, the influence of these poisons upon the heart, with the slow or irregular pulse, long maintained and sometimes never quite restored.

Causes.—The essential of influenza is now admitted to be a bacillus, whose discovery is attributed to Pfeiffer and also Canon, and the isolation of which is attended with a good deal of difficulty. It is a small, specific organism, resembling the bacillus of mouse septicemia, but shorter, and appears in the blood and the secretions from the nose and intestines. The earliest site of infection is usually the throat. There are certain contributory causes pointed out among which meteorologic conditions are mentioned. The spread of the disease is of extreme rapidity and along the lines of travel.

Diagnosis.—If the disease is not known to be prevalent, the earlier cases are liable to be overlooked, unless of great severity. Ordinary acute catarrhs, however, are rarely so severe or accompanied by such pain and prostration, nor does the process extend to contiguous organs. When influenza is epidemic, there is less difficulty in recognizing an attack, which is marked by rapid onset, sudden and high rise of temperature, and usually evidence of pain in the head or generally about the body or in some limited locality. Cases of sudden irritability of the stomach and intestines, accom-

panied by head pains and severe fever may be assumed to be influenza. From pneumonia it may be differentiated by the absence of physical signs in the presence of the general symptoms of chill, cough, etc.; but very soon we may find actual pneumonia as a complication, either when it is thus suspected, or following mild attacks of catarrhal fever, when not anticipated, and yet characteristic physical signs will be demonstrated upon starch. Often the case presents a complete picture of pneumonia, with, however, an absence of the dullness on percussion, when, in true pneumonia, auscultation would have lead us to expect it.

Influenza resembles measles in its onset, both in catarrhal symptoms and sometimes in the rash. At other times, scarlatina is simulated by the throat symptoms along with a scarlatinal rash, both usually of short duration. When the lung symptoms are protracted and severe, miliary tuberculosis may be feared. Typhoid fever closely resembles catarrhal fever, even in the matter of eruption, but the rose-colored spots in catarrhal fever are more numerous, extend over larger areas, persist longer, and remain as slightly brown discolorations for some time after fading. The fever, moreover, is more irregular than in typhoid, nor do we see the apathetic face so constantly, the countenance being flushed in influenza, and pale in typhoid. The mind, moreover, is clear, the temper often irritable. The temperature in influenza frequently shows an evening fall and a morning rise (the reverse of typhoid progression) and often there is a marked rise and fall at periods of a week. Oftentimes, meningitis and influenza are scarcely to be differentiated, though in true meningitis, muscles of the neck and back exhibit a characteristic and intense rigidity of a persistence not seen in catarrhal fever. The diagnosis may be delayed during the progress of ill-defined and mild symptoms, but is made known by the feebleness of the child during convalescence, especially by a weak, irritable heart, and disabilities of various sorts, especially for sustained exertion. (The difficulties of diagnosis are great, yet to one familiar with the disorder, certain things are known. Dr. A. W. Watson suggests that it requires a good deal of courage to persist in the diagnosis of influenza till subsequent phenomena appear and confirm; before recovery there is always some doubt.)

Prognosis.—Influenza is a very fatal disease, partly from the virulence of the toxin generated in the blood, which will kill outright, and partly from the devitalizing effects wrought upon the great organs, and also from its serious sequelæ and complications. In children these resulting effects are milder and more limited than in adults; neuritis is rare. Persistent nervous cough is perhaps the most frequent. Gastric influenza with profuse nervous vomiting occurs in very young children, also there is an influenzal dysentery most persistent and depleting. The mortality varies in different epidemics and in some of them children are more affected, in others, adults. All kinds of children are apparently attacked indiscriminately. So sudden is the fatality that sunstroke and malignant malaria or scarlatina may be suspected. The digestive and respiratory organs may escape, the poison overwhelming the nervous system. Weaker children naturally succumb more readily. Robust children, however, are frequently changed into frail, feeble beings for years or for life.

Symptoms.—The usual form of the influenza attack is a severe catarrh of the upper respiratory organs, often beginning with sneezing, sometimes as a laryngitis, less frequently as a tonsilitis, and rapidly extending into the throat and lungs, along with pains in the head or elsewhere, neuralgias or myalgias, disturbances of the heart action and extremely irregular fever. The next is frequency (perhaps as frequently in children) is acute gastritis or diarrhea or both, also associated with pains and other symptoms described. The third form depends upon involvment of the brain or nerve system. It is manifested by irritability and fretfulness (almost pathognomonic), or there may be hebetude, or rather apathy, from which the child is easily roused, and is then

fairly bright, not slow and dull of speech as in typhoid fever. There may occasionally be convulsions or coma vigil.

There may be chill and delirium at first, possibly a convulsion and usually extremely rapid, more or less irregular pulse. At once the temperature begins to be flighty and may run high, but not as a rule. This may alternate with or soon be followed by subnarmality. All these three groups of symptoms or so many of them as are not masked by the others may occurs together or in rapid succession. Headache or other pain is evidenced only by the child putting his hand to the suffering locality.

The respiratory catarrh is liable to extend alarmingly, involving first one lung, then the other, producing severe bronchitis or broncho-pneumonia which sometimes clears up unexpectedly or destroys life, largely in proportion to the (not to be predicted) severity of the toxicity or the resistance and vigor of the child.

When the digestive organs bear the brunt of the attack exhaustion is from a double cause. Malnutrition is severe, appetite is often lost after the vomiting or diarrhea is controlled, and a wretched picture is presented of collapse and emaciation.

Complications may involve any and every organ in the body. Tuberculosis is liable to infect the thus depraved constitution. Middle ear disease often occurs. The skin is variously affected, herpes, erythema and urticaria being common. Rheumatism, or rather, painful arthritis is a common and distressing feature. The kidneys suffer, but not often. The bones are affected occasionally (a periostitis). Those children having a tendency to rickets are liable to develop it. Glandular enlargements are common and persist.

The younger the child the less characteristic are the symptoms. In the very young gastric symptoms prevail. The spleen is sometimes enlarged. Albuminuria occasionally appears.

Treatment.—Prompt and efficient isolation with full means for disinfection is demanded from the start.

To this there should be no demur or temporizing, though neither the public nor the health officers realize this yet. The treatment must be symptomatic, and among the first comes relief of pain. During the stage of high fever repeated foot-baths are most grateful; and carefully watched aconite tincture, ½ to 1 minim, may be given every ten to fifteen minutes, or soon to be followed by the coal-tar antipyretics (for temporary use), and next full stimulation by champagne, or spirits in effervescent waters, or brandy or brandy and ginger ale at short intervals; also concentrated foods till the stomach can receive more substantial fare. Full feeding is to be given soon and persistently.

For the respiratory catarrhs a combination of atropin, morphine acetate, or codein in small repeated doses gives great comfort. This had best be accompanied by strychnine to sustain the heart. Quinine is also indicated, the hydrochlorate best, and by the rectum. For vomiting, bismuth subcarbonate may be given in chloroform or peppermint water or cinnamon water. For very severe gastritis cocaine will often relieve; 1-200 of a grain being given every half hour. The hot-foot bath helps this too, as does mustard to the epigastrium or neck.

Phenazone is a good analgesic and expectorant, and this or phenacetin, along with sodium salicylate or salicin every two or three hours, will relieve the myalgia. For intense muscle pains the hot pack or steam bath, general or local, is comforting.

Convalescents demand the most watchful, persistent care. Here the great standby is strychnine in increasing doses (up to the verge of twitching), and long continued tonics and nutrients; persistent over-feeding, predigestion—measured amounts of easily digested foods; meat extracts, tonics of various sorts, digestants; hypophosphites, cod-liver oil, and, above all, change of air, which is demanded in tardy or incomplete convalescence.

THE Pennsylvania Legislature will be petitioned by leading Philadelphia physicians to make an appropriation for the establishment of a State colony for epileptics.

Kansas Medical Journal.

PUBLISHED WEEKLY

BY THE UNION PUBLISHING COMPANY.

SUBSCRIPTION PRICE, INCLUDING POSTAGE:

Per annum, in advance..... $1 00
Single copies..... 15 cents

Subscription may begin at any time. The safest mode of remittance is by bank check or postal money order drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers by forwarding in Registered Letter. Address

UNION PUBLISHING CO.,
TOPEKA, KAS.

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Topeka, Kansas, Saturday, March 6, 1897.

THE new administration seems determined to make a record. As it has apparently not been able to improve upon the old laws, it proposes to make a record of destruction. The Senate has passed a bill to annul the law creating the Board of Health. If this becomes a law one of the most important boards in the State will be abolished. It is important not so much from the powers which it now has, but which it should have. Kansas has certainly lost several steps in the progress of civilization if it is to judged by the most recent acts of its legislators. We did hope for a time that it would be possible to get some kind of medical practice act through, but with the sentiment which seems to pervade the new crowd it would be easier to abolish doctors entirely. With the abolition of the Board of Health and the apparent opposition to any kind of medical legislation, Kansas will continue to be the dumping ground for quacks and incompetents. The fear of some sort of legislation drove many under graduates to the colleges during the past winter, but with so plain an expression of existing sentiment as we have had in the present Legislature will give more assurance to this class of men than they have ever had before.

DR. YANCY, of Sedalia, Mo., to whom was offered the position of chief surgeon of the the Santa Fe, has received an increase of salary from the road now employing him, consequently will not accept the appointment. It is not known at present to whom the position will now be tendered.

THE commencement exercises of the Kansas Medical College will be held Tuesday evening, April 6. Dr. Herrick, president of Washburn college, will deliver the general address, and Dr. S. E. Sheldon the faculty address. There are twenty-two students in the graduating class.

THE Kansas Medical college will gratefully receive donations of pathological specimens. Delicate specimens should be put in alcohol and sealed to prevent damage in shipping. The college will pay express and all expenses.

DR. FRANCIS STORRS is very seriously ill with pyemia, the result of a slight wound received while doing a post-mortem two weeks ago.

DR. KASTER of Albuquerque, N. M., has accepted the position of chief surgeon of the Santa Fe and will report for duty March 14.

Tri-State Medical Society.

The Tri-State Medical Society of Iowa, Illinois and Missouri meets in St. Louis April 6, 7 and 8, 1897. Meetings will be held in the auditorium of the Holland building, Seventh and Olive streets.

SPECIAL FEATURES.

Dr. Joseph Price, of Philadelphia, will conduct the surgical clinic.

Dr. Jas. T. Whittaker, of Cincinnati, will conduct the medical clinic.

Dr. Dudley Reynolds, of Louisville, will conduct the ophthalmic clinic.

Prof. Edwin Klebs, of Chicago, will give a pathological demonstration.

Dr. J. Mount Bleyer, of New York, will demonstrate the use of the fluoroscope in diseases of the lungs.

Dr. Fenton B. Turck, of Chicago, will read a paper on "Olegocythaemia and Leucocytosis in Gastro-Intestinal Diseases with Methods of Treatment." Demonstrations.

Dr. G. Frank Lydston will entertain the society on the evening of the 7th with "An Original Doctor's Story, with Plenty of Points."

PAPERS.

The Morbid Anatomy of Inflammatory and Degenerative Diseases of the Peripheral Veins—Dr. Thos. H. Manley, New York.

Unconscious Celebration—Dr. J. K. Bauduy, St. Louis.

Some Phases of Narcomania—Dr. W. F. Waugh, Chicago.

The Management of Chronic Bright's Disease—Dr. Charles W. Purdy, Chicago.

The Treatment of Pulmonary Tuberculosis by the Hypodermic Method—Dr. Robt. O. Cross, Kansas Bity.

Physiological Copulation—Dr. G. M. Phillips, St. Louis.

The Treatment of the Stump in Hysterectomy and Hystero-myomectomy—Dr. G. F. Hulbert, St. Louis.

The Cause and Treatment of Epilepsy—Dr. J. W. Fowler, Dubuque.

The Mouths of our School Children—Dr. Carl Theodor Gramm, Chicago.

Lumbago—Dr. F. Reder, Hannibal.

The Collapse of the Nasal Alæ as an Etiological Factor in Diseases of the Respiratory Passages—Dr. W. Scheppegrell, New Orleans.

Some Clinical Notes on Vaginismus—Dr. Allen Staples, Dubuque.

A Plea for the early Recognition and Operative Treatment of Cancer of the Uterus—Dr. O. Beverly Campbell, St. Joseph.

Surgery of the Gall-Bladder (with report of cases)—Dr. J. M. Black, Knoxville.

Talipes—Equino-Varns, Surgery of—Dr. C. E. Ruth, Keokuk.

The Necessity for a More Careful Examination of the Rectum in Chronic Diseases—Dr. J. R. Pennington, Chicago.

About the Treatment of Skin Diseases—Dr. David Liebiethal, Chicago.

Malaria—Dr. J. O. DeCourcy, St. Libory, Ill.

Pancreatic Cysts—Dr. D. C. Brockman, Ottumwa.

Gonorrhœal Synonitis—Dr. E. J. Senn, Chicago.

The Relation of the Science of Medicine to Public School Education—Dr. Jno. Punton Kansas City.

La Grippe and Its Sequellæ—Dr. S. S. Davis, Fulton, Mo.

A Case of Strangulated Inguinal Hernia—Resection of Intestine—Recovery—Dr. H. C. Dalton, St. Louis.

Presentation of a Cretin; Remarks on Treatment with Thyroid Extract—Dr. H. H. Vinke, St. Charles, Mo.

The Necessity of Special Institutions for the Treatment of Pulmonary Tuberculosis Dr. A. C. Klebs, Citronville, Ala.

Convulsions following Labor (remote)—Dr. H. C. Finch, Lynnville, Ia.

Serum Therapy with Report of Cases—Dr. J. M. Allen, Liberty, Mo.

Report of a Case of Echinococcus of the Liver with Rupture of Gall-Bladder—Dr. Donald Macrae, jr., Council Bluffs, Ia.

The Pathology of Malignant Disease—Dr. G. Wiley Broome, St. Louis.

Urinalysis—Dr. J. A. Close, St. Louis.

Certain Morphological Characteristics of Nervous Prostration and Their Treatment

by Mechanico-Therapeutics—Dr. E. H. McCullus, St. Louis.

Treatment of Septicemia by Subcutaneous Medication—Dr. Emory Lanphear, St. Louis.

A New and Practical Method of Opening and Dilating the Eustachian Tube—Dr. Wellington Adams, St. Louis.

Malposition of the Uterus and Ovaries; Their Influence in Functional Disorders of the Heart and Digestive Organs—Dr. R. E. Farris, Anna, Ill.

Dr. S. G. Gant, Kansas City—Subject unannounced.

Dr. J. Black, Kansas City—Subject unannounced

Dr. Ohmann-Dumesnil, St. Louis—Subject unannounced.

The Treatment of Gonorrhea by Argonin Injections.

J. W. Daniels, M.D., in the American Therapist.

Among the many affections that the physician is called upon to treat, there is perhaps none which gives him more trouble than specific urethritis, or gonorrhea. Any new plan of treatment that gives promise of successful results, is, therefore, always of practical interest. It is for this reason that I wish to briefly report my clinical experience with the new remedy, argonin, based upon its exclusive use in the treatment of twenty-six cases.

Argonin is a combination of silver with the casein of milk, occurring in the form of a white amorphous powder, soluble up to 10 degrees in hot water; 15 parts of argonin contain as much silver as one part of silver nitrate; unlike this latter drug, however, it is not decomposed by albuminous substances, nor is it precipitated by sodium chloride. It is also claimed for it that it does not irritate the urethral mucous membrane, even in concentrated solution.

The truth of this latter claim I have demonstrated to my entire satisfaction, as in none of my twenty-six cases (twenty of which were in the acute stage) was there any complaint of pain or irritation of the canal; on the contrary, the scalding of the urine quickly disappeared and the inflammation rapidly subsided. Chordee was complained of in one case only, disappearing within twenty-four hours after the use of the remedy.

A careful observation of each case, with a daily examination of the discharge, shows that in the twenty acute cases the gonococci disappeared entirely from the fourth to the sixth day after the commencement of treatment. To be more exact, in one case the gonococci disappeared on the second day (the shortest period in any case treated), in thirteen on the fourth day, in two on the fifth, in three on the sixth, and in one on the seventh. Argonin was employed in the strength of 15 grains to the ounce of water and from six to eight applications were made during the twenty-four hours. No restrictions were placed on the diet, but alcoholic drinks were to be strictly excluded. Owing to the difficulty of obtaining sufficient quantities of argonin when the remedy was first introdueed, I was compelled to use it very sparingly, and hence never prescribed it in stronger solution than that above mentioned. From my experience so far, I am convinced that the efficacy of the remedy is not to be gauged by the strength of the solution used; in other words, a 10 per cent. solution is no more efficient in destroying the gonococci than a 5 per cent. solution. The method I have adopted of using the weaker solution from six to eight times a day is much more effective than making one application a day of the stronger solution. It is almost impossible to bring the medicine in contact with the entire diseased surface in one application, or for that matter in several applications, or reach the intricate hiding places of the gonococci after the most careful procedure. My plan is to use the ordinary penis syringe for the first three or four days; after this, while still continuing the use of the smaller syringe, I use once a day a long nozzled instrument reaching to the posterior urethra, with which I make application to the deeper structures and direct the patient to retain the injected solution for eight or ten minutes. After the dis-

charge had subsided, which occurred about the seventh day in the majority of cases, the injection was continued for six to eight days as a precautionary measure. The moment all strings or muccous threads (tripperfaden) disappear from the urine, I conclude that the disease is thoroughly cured, and the patient may discontinue the remedy.

In only two cases did the discharge return, in one on the ninth and the other on the fifteenth day, these two having discontinued the remedy without consulting me. The discharge rapidly subsided after resuming the injection, and did not reappear.

I have also employed argonin in six cases of gonorrhea complicated by posterior urethral conditions and strictures, the results of former attacks. The strength of the solution used in these cases was from 80 per cent. to 10 per cent. In each case the most flattering results were obtained, the discharges ceased after six or seven days use of the remedy, the gonorrhea disappeared in a few days, and there was every indication that a cure had been affected; but after the remedy had been discontinued for a short time, the discharge re-appeared, and while all the symptoms were modified in their character, there was still present the evidence of the disease. From my observations so far, I feel confident that in uncomplicated cases of acute gonorrhea (especially in primary cases) argonin will relieve all those distressing symptoms incident to the first stages of the disease, and effect a complete cure in from twelve to eighteen days if the treatment is properly followed out.

I am more than satisfied with the results so far obtained from the use of the drug in acute urethritis venerea, and hope the experience of other practitioners will be equally as satisfactory and gratifying as mine has been.

A GOOD location in northeastern Kansas can be secured by buying office, barn and outbuildings in an incorporated railroad town. Only physician in town. Address this office.

Biological Basis of Menstruation.

Medical Record.

Dr. J. Clarence Webster, of Edinburgh, was the author. He first pointed out certain explanations of the menstrual function which he regarded as erroneous. The first was its relation to ovulation, the view having become widely believed that in menstruation was a necessary preparation for the development of the ovum in case it should be fertilized. Many facts refuted this explanation. Conception sometimes took place before puberty or beginning of menstruation; it sometimes occurred after the menopause; post mortem and ante-mortem section showed Graafian follicles at all periods of development without relation to the menstrual period and the reverse; removal of the ovaries did not always stop menstruation. Yet it was not denied that there was some relation between the two processes—menstruation and ovulation. The author then mentioned the variable effect of operations, removing the ovaries, the tubes, etc. In the third place, he spoke of Dr. Johnson's view, supported by Tait and some others, that the menstrual act was related to the nervous system, peripheral, or both cerebral and peripheral, and who explained cessation of the menstrual function after removal of ovaries and tubes by the tying off of the nerves, or failure to do this close to the uterus in the cases in which the flow continued. Fourthly, as to the view that mensturation was probably a preparation of the uterine mucosa for the engrafting of the ovum, the author said he had repeatedly urged its improbability on several grounds, among which he mentioned the occasional occurrence of conception before commencement of menstruation, at a time when the mucosa could not have been denuded by that process; also the occurrence of conception during lactation, when the menstrual process was in abeyance. Further, there was nothing worthy the name of menstrual decidua in the menstrual discharge. Not a single fact had been advanced to support Lowenthal's theory, that menstruation was due to

non-fertilization and death of the ovum—that when the ovum was fertilized, it became implanted in the uterus and grew, and menstruation ceased; when it died, it was discharged and the mucosa broke down.

Johnstone, he said, believed that menstruation was the result of periodic wasting away of corpuscles which were too old to undergo the change which must occur in connection with the attachment and development of the fertilized ovum. Johnstone did not regard the endometrium above the internal as mucous membrane, but as belonging to adenoid tissue.

In the fifth place, Dr. Webster considered the relation of menstruation to body metabolism, and finally its biological aspect, which he said had been almost entirely neglected. A careful study of plants and animals had enabled biologists to establish a distinction between "maleness" and "femaleness" in terms of physiological and psychological value. It was only recently, however, that sex differences had been studied on the basis of such inquiries. Too long had reproduction and sex been considered by themselves, as if they were something to be dissociated from the general physiological organism. The most important sex distinction which had been established was that which had to do with the general metabolism or the protoplasmic chemistry of the body. Every living cell and organism was constantly representing two forms of metabolism—the one anabolic, by which nutrition was taken in, waste repaired, energy restored, structure made or altered; the other catabolic, by which potential was changed into kinetic energy, or movement or activity manifested, structural alteration induced, and waste created. Throughout the animal kingdom the characteristic metabolism of the male was ca abolic; of the female, anabolic. The same distinction was made in the plant world. The lines of inquiry on which this distinction was made were as follows:

1. A study of sex.

2. Investigation of the condition of plants and animals in the lowest forms in which sex had its beginning.

3. Observation of normal and pathological changes in the reproduction apparatus.

4. Experimental inquiry into the nature of factors which determine sex.

After following up these lines of inquiry, the author thought we were forced to regard the menstrual function as the highly specialized means, gradually produced in the evolution of the highest mammals, by which the two great factors in tissue metabolism, the anabolic and catabolic, were properly balanced. Normally it became established along with the various phenomena which characterized the development of sexual activity, namely, at puberty, because it was then that the metabolic habit peculiar to females (predominance in anabolism) manifested itself. The range of variation in the menstrual function in the human female was attributed to the instability of the process during the stage of evolution preceding the fixed habit. While there could be little doubt that menstruation had been established in higher animals by gradual evolution, we were in doubt as to how it had been established. Having begun, it probably proved to be advantageous, and by natural selection became a fixed characteristic. Had it proved of no advantage, it probably would have been eliminated. Natural selection in the highest ranks of the animal world was not in the direction of establishing a numerical superiority, but was based on individual characteristics in the selected number. The tendency was to diminish the number of offspring and improve the quality of the individual. It was associated with the development of a single uterus, with a diminution in the number of the offspring, with the determination of the semi-errect or errect posture. Of prime importance among these factors was a change from a bicornuate to a single uterus. Natural selections had tended to make irregular menstruation regular, the male having a feeling of disgust for the menstruating female. In his remarks upon marriage, observed to a degree by many animals, Dr. Webster said the offspring undoubtedly stood a better chance of surviving when the parents united their efforts in

raising it.

Speaking of the rut, Dr. Webster said it came on in different animals at different seasons of the year, in accord with the duration of pergnancy, this terminating at that season which offered the best chance for the offspring to survive. In man and in some animals season was less important for the raising of the young, and copulation took place throughout the year. It seemed likely that the rut in the higher vertebrates was an expression of forced sexual affinity to secure fertilization of the ovum. The physical changes at this season pertained mostly to the male, who showed great activity, while in the female the change was mostly psychical and passive, being in accordance with the rule already referred to—that in the female the anabolic process was typified, the catabolic in the male.

Social Purity and Marriage

E. S. Bullock, M.D., in The New York Polyclinic.

It seems that new ideas and principles increase in number in a direct ratio to the lengthening age of the world. One which can be referred to the rapid spread of scientific knowledge among the people in general and especially to the higher education of women, is the growing conviction on the part of the gentler sex that they should not receive into their arms the men aspiring to conjugal felicity who cannot bring to them a guarantee of freedom from diseases which, when existent, may menace the health of the wife and her children, and destroy the happiness which marriage should bring to all who participate in it. The great educator the modern novel, its co-worker the problem play, and, last but not least, the higher education of women, have all been potent influences tending to take sexual relations from its place among the mysteries of life, from the darkness with which it has always been environed, and allow the pure sunlight of scientific knowledge to shine upon it. Such influences as these are to many maudlin occupants of the pulpit proofs of degeneracy; of what they are pleased to term the impure spirit of the age. To the calm and careful thinking sociologist they are evidences of a wish to see the question settled. To end controversies is pre-eminently the spirit of the century in which we live, and what our sexual relations should be is but one of the problems of which we seek the solution. Knowledge is not impurity; innocence which knows not its place in the world is degrading. Normal, healthful sexual intercourse is no more wrong than is the performance of any other purely physical act, and it only becomes wrong when performed in the face of social law. Our social system puts clearly defined limits upon sexual indulgence, and proscribes license. Our intelligent women are waking to the fact that the social law was not made for women alone, but applies in all equity to the opposite sex as well.

A moral nature so finely developed that it will not permit its owner to enter into the marriage state, bearing the seeds of possible direful results to wife and family, is not common among men. Sometimes mistaken and pitiable marriages are the result of ignorance rather than of moral deficiency, but the family physician and the consultant gynecologist are no longer the only ones who knows why such and such a wife is an invalid, or why such another one is sterile. Keen-sighted women are coming to understand these things. Victims and sufferers, perhaps, themselves, they are rising in defense of the daughter's health and happiness from the results of a life of lasciviousness ante-dating marriage on the part of the man who desires to share the conjugal bed.

From Paris, that star in the firmament of cities, as well as the cloaca of civilization, comes the latest instance of this awakening on the part of thinking women. At a Woman's Congress recently held, resolutions were adopted to the effect that "all families must secure certificates of health from intended son-in-law, in order to guard the daughters of the republic from the risk of contagious or hereditary maladies in the aspiring fathers of a later generation."

Medical men have accomplished much in promulgating the doctrines founded upon their work and study, and the world is bound to awaken to the importance of the subject when it understands that 15 per cent. of all diseases of women, excluding prostitutes, are caused by gonorrhœa and its sequelæ Still, and in spite of this, only a small proportion of the credit of educating upon these lines belongs to the medical profession. Medical literature is peculiarly barren of knowledge relating to sexual subjects. Medicine, like parents, leaves this as the one subject to be avoided.

Let us say all we can in encouragement of the women of France in their good work, and extend a welcome to the fast approaching time when the young couple starting out on the way of married life, come to each other with a clean bill of sexual health. It will be one great step toward the future marriage, which, like good life insurance, will be impossible without a certificate of freedom of hereditary or acquired disease.

The Mechanics of Flat-Foot.

American Medico-Surgical Bulletin.

J. C. Schapps (*Brooklyn Medical Journal*) considers the muscles of much more importance than the ligaments, and points out the fact that in standing and walking, the toes and front of the foot form the fixed end, and that the muscular action is exerted mainly from both ends or the middle. The tendon of the flex. long. pol. has its origin in the distal phalanx and may be regarded as the principal bow-string. In rising on the toes it raises the metatarsophal. articulation, and the bones here, as well as at the heel, ride as it were on a tight rope. The flex. long. dig., crossing this tendon, draws it upward and so increases its tension. The tendon of the tib. post. supports in a similar sling the head of the astragalus. These three muscles also support the internal malleolus and prevent pronation of the foot. When standing on the toes, the back part of the foot is partly suspended therefore by the annular ligament, upon the tib. ant. and extensor tendons passing under it, and partly supported on the flexer tendons, while the body weight causes it to slide downward. The arch is increased as the heel is raised, and this action, it must be remembered, is not accomplished by the tendo Achillis muscles alone, as in that case the arch would be obliterated.

Ingrowing nails, hallux valgus, hammer toe and corns not only diminish the ability of the fore-foot to bear weight and stand strain, but also tend to cause eversion of the foot, which in turn allows the astragalus and inner malleolus to become more prominent. The body weight should, on the contrary, be transmitted from the great toe upward, *outward*, and backward. Tight stockings are almost as injurious as pointed-toed shoes. Rheumatism and gout are causes and serious complications of some cases, on account of the pain and restriction of motion. The weakness of bone, muscle, and ligament in rickets, the increased pressure on the inside of the foot in knock knee, paralysis of the muscles, and sprain of the ligaments are mentioned by the author as causes. Over-strain of healthy muscles, or the ordinary strain on intrinsically weak muscles, may also produce it. The author does not mention a shortened tendo Achillis in this connection, though Dr. Shaffer has proved this to be an antecedent condition in many cases of flat foot. Here the ankle flexion being blocked, throws an injurious strain on the medio-tarsal joints.

The objects of treatment are to restore the bones to their nomal positions, and then secure efficient muscular activity. Where there is considerable pain and muscular spasm, Dr. Schapps advises two or three weeks' rest, in the best position, before forcible attempts at correction are made. In older cases, with marked rigidity and deformity and but little pain, the feet may at once be over-corrected under anesthesia, and put up in plaster splints for five or six weeks. When rheumatism is present, harsh treatment may rekindle it and produce even more adhesions.

Mechanical supports must be used after the flexibility of the foot has been restored,

until the muscular supports become normal. The author details a method of making arched steel soles he had successfully used for six years, which renders them available to anyone who can handle a few common tools.

Dies were made from plaster casts of a well developed adult foot, and soft sheet-steel (18 or 20 Stub's gage) soles easily shaped in them for any sized foot, since the arches of large and small feet were found to correspond simply to a larger or smaller part of the convex surface of a cone. The plates were trimmed to extend to a point just behind the heads of the metatarsal bones, and on the inside to just below the scaphoid and head of the astragalus. There was no outside flange. The author does not think it necessary or advisable in many cases to extend the inside flange, as Whitman does, higher up the inside of the foot, since "as the arch yields to pressure upward on the under side of the head of the astragalus and the scaphoid, these bones must necessarily be carried outward toward the median line of the foot." The under side is also padded better for pressure. If there is much pronation of the foot, the shoe may be built up on the inside—rather than resort to lateral pressure.

These steels do not supplant muscular activity; for when the muscles are efficiently at work in raising the heel, the sole is lifted away from the steel. They do not stretch upward the supporting structures of the sole, because the flex. long. pol., the bowstring, is itself pulled up by the action of the flex. long. dig., and the plantar structures of a healthy foot are never stretched straight across the arch. A practical proof is also afforded in that after a while the hollow foot will be found to have drawn itself away from the plate.

Exercises are most important in the treatment. Rising on the toes, turning the heel outward and descending, should be performed, till the muscles ache, several times daily. Active and passive eversion and supination are also excellent exercises.

When from paralysis, age, or some permanent condition the muscles cannot resume their functions, the soles may be worn indifinitely with comfort, but usually they may be discarded after a time.

The Daily Medical Inspection of Schools in a Great City.

Journal American Medical Association.

We think it is not generally known, even among those who are considered to be sanitary adepts, that Boston has, after years of effort, the benefit of a genuinely systematic school inspection. The August number of the *Archives of Pediatrics* shows how this innovation was secured by the Board of Health as a consequence of a very severe epidemic of diphtheria. The general plan of operations, that has now been in force for a year, and that was, we believe, devised or matured by Dr. S. H. Durgin, is the following: The city was divided into fifty districts, giving an average of about four school houses and fourteen hundred pupils to each district. No difficulty was experienced in finding well-qualified and discreet physicians who would undertake the duties prescribed. The board appointed one physician for each district, with a salary of $200 a year, plus the honor and satisfaction of serving in a good cause. His duty is to make a visit to each master's school daily soon after the beginning of the morning session. The master receives from each of the teachers in his district, early reports as to the appearance of symptoms of illness in any pupils in their charge. These reports are given to the visiting physician, who at once examines the reported children and makes a record of his diagnosis and action in books furnished for this purpose, and kept in the custody of the master. If the visiting physician finds the child too ill to remain in school, he advises the teacher to send the child home for the observation and care of its parents and family physician. If the illness is from a contagious disease, the child is ordered home and the case reported to the Board of Health. The medical inspectors never undertake to give professional treatment in any case. They

merely point out the need of professional treatment where the need exists. The treatment itself must be received from the family physician or in the hospitals or in the dispensaries. Incidental to this school inspection the same corps of medical men is also serving as agents of the Board of Health in control of contagious diseases which are treated at home. The Board of Health sends to each of the school inspectors, every morning, a full list of the cases of diphtheria and scarlet fever which have been reported during the previous twenty-four hours. Each medical officer selects the cases reported in his district, visit them to see if they are properly isolated at home, leaves a card for the attending physician, politely informing him of the official visit and reports his approval or disapproval of the isolation at once to the Board of Health for its action. If the patient is properly isolated, the officer places a card on the door of the room to indicate the official designation of such room for the isolation of the patient. If the case is not properly isolated and such isolation cannot be commanded at home, he reports such facts to the Board of Health, and such patient is at once ordered to the hospital. He makes another visit to the patient. This school inspector and agent of the Board of Health is indirectly held responsible for the proper isolation of the patient at home, for causing the removal to the hospital when necessary, and the patient's release from isolation; in other words, the Board of Health is thus provided with trustworthy information upon which it can act for the best protection of the schools and public against the spread of contagious diseases.

Impetigo Contagiosa Universalis.

J. A. C., in Philadelphia Polyclinic.

Allen (*Annals of Gynecology and Pediary*) records a most interesting case of contagious impetigo, in which the common lesion was rather a bulla than the usual vesicular manifestation. These lesions would often come out in localized crops, but another time would show themselves at diverse regions. When newly formed, the bulla would be tense, having clear contents; but unless ruptured in an early stage, they became turbid and flaccid. Rupture taking place left it reddened, denuded, tender and painful surface, which showed spreading at the margins, with an undermined or raised condition of the epidermis, while the fluid escaped at the free borders, drying into light, wavy crusts; the center presenting a cover of dirty material, made up of hardened blood elements. At first there was no erythematous zone, but after a short time this would appear as a narrow, bright red band, which spread out before the extending process. The coalition of several of the larger and smaller bullæ would often show serpiginous forms, with a subsequent pigmented area. Glandular enlargements were noted both in the cervical region and in the groins. The interesting portion in this report is the appearance of lesions at diverse regions as well as the bullæ which presented themselves, and the question as to what the cyclic manifestation was due. Allen believed that it was because of the micro-organism remaining in the tissues, as the succeeding crops presented themselves upon the margins of the former patches or upon the pigmented areas which had already been implicated, and that the transfer of the contagious elements was due to the scratching, as entire freedom was given to the back, upon which the child was unable to carry the infection. Dr. Fox, who had produced two beautiful photographs of the condition, believed that in the exacerbating form of the disease that the micro-organisms had gained entrance to the general circulation, and in some way, not yet understood, had produced their effects in a cyclic manner. As the staphylococcus pyogenes aurears may always be found in the turbid contents of the bullæ, says Crocker, the authors statement that a suppurating legion would seem to be required for it to gain a foothold, is ingeniously explained by Dr. Payne, president of the Dermatological Society of Great Britain and Ireland, whom the the writer quotes: "That the cocci

cultivated in the local seat of inflammation become sufficiently virulent to produce vesicles and pustules in the neighorbood;" and until a better explanation is offered, or a specific microbe is discovered, this explanation is sufficiently scientific and plausible.

Old-Time Remedies.

Medical Standard.

In this age and generation, physicans, and especially the younger branch of the profession, are apt to believe what they don't know about materia medica and therapeutics is not worth knowing. In the dark ages of the eighteenth century, however, remedies were in use which put to shame our vaunted erudition. In a little-known English book which has lately fallen into our hands are a number of aids to treatment which the physicans of today are ignorant and by means of which they may place themselves on a higher therapeutic plane. It would undoubtedly produce a lasting effect upon patients to persuade them that they were suffering from the remarkable disease mentioned in this book, and if, unfortunately, the disease proved incurable, what a blessed and aristocratic privilege and solace it would be to the sorrowing relatives to reflect that the deceased had so unique a disease as "Glim'ring of the Gizzard," for instance.

From this word the following interesting and practical excerps are taken:

A man who lived at the Three Compasses in Maiden Lane issued a handbill that he "would infallibly cure several strange diseases, which (though as yet not known to the world) he will plainly demonstrate to any Ingenioas Artist to be the greatest Causes of the most common Distempers incident to the Body of Man, the names of which are as follows: The Strong Fives, the Marthambles, the Moon Pall, the Hockogrocle."

In Surrey-Street, in the Strand, at the Corner House with a White Balcony and Blue Flower-Pots, liveth a Gentlewoman, who hath a most excellent Wash to beautifie the Face, which cures all Redness, Fushing or Pimples. Takes off any Yellowness, Morpheu, sunburn, or Spots on the Skin, and takes away Wrinkles and Driness, caused too often by Mercurial Poysonous Washes, rendering the worst of Faces fair and tender, and preserves 'em so. You may have from half a Crown to five Pound a Bottle. You may also have Night Masks, Forehead Pieces, incomparable white-pots, and Red Pomatum for the lips, which keep them all the Year plump and smooth, and of a delicate, natural colour. . . . Also a Water to Wash the Mouth, which prevents the Scurvy in the Gums and cures where 'tis already come. . . . She has also a most excellent Secret to prevent the Hair from falling, cause it to grow where it is wanting in any part of the head. She also shapes the Eye-brows, making them perfectly beautiful, without any pain, and raises low Foreheads as high as you please. And colours Grey or Red Hair to a lovely Brown, which never decays, changes or smoots the Linnen. She has excellent Cosmeticks to anoint the Face after the Small Pox, which wears out any Scars, Marks or Redness; and has great skill in all manner of sore Eyes. She has a most excellent Dyet Drink, which cures the worst of Consumptions, or any Impurity of the Blood; And an Anti-scorbutick spirit, which, being taken one spoonful in the Morning, and another at Night, with moderate Exercise, cures the Scurvy, tho' never so far gone, and all broke out in Blotches; with many other Secrets in Physick, which you may be satisfied in when yoa speak with her.

In 1739, the English people, by Act of Parliameht, agreed to pay to Joanna Stevens £5000 for the following Remedy used in a painful disease: (A committee of 20 scientists investigated her medicines and reported favorably on them.) A powder made of egg shells and snails, both burnt; a draught made of Alicante soap, swine's cresses burnt, and honey. This was made into a ball, which was afterward sliced and dissolved in a broth composed of green camomile, or camomile flowers, sweet fennel, parsley, and burdock leaves, boiled in water and sweetened with honey; a pill compounded of

snails, wild carrot seeds, burdock seeds, ashen keys, hips and haws, all burnt to blackness, and then mixed with Alicante soap.

A very nutritious and proper restorative food (taken from the London Dispensatory): Take a middle-sized viper, freed from head, skin and intestines, and two pints of water. Boil them to a pint and a half; then remove the vessel from the fire; and when the liquor is grown cold, let the fat (which congeals upon the surface, if the viper is fresh) be taken off. Into this broth, whilst warm, put a pullet of moderate size, drawn and freed from the skin and all the fat, but with the flesh intire. Set the vessel on the fire again, that the liquor may boil; then remove it from the fire, take out the chicken and chop its flesh into little pieces; put them into the liquor again, set it over the fire, and as soon as it boils up pour out the broth, first carefully taking off the skum. Of this broth let the patient take a half pint every morning, at two of the clock in the afternoon, and at supper-time.

For Cancer, take of live wood-lice, one ounce; fine sugar, two drams; a little powder of nutmeg, and a half a pint of alexeterial water. Let the wood-lice and sugar, with the nutmeg, be ground together in a marble mortar, then gradually add the water, which being well mixed, strain it with hard pressing. Two ounces of this expression are to be taken twice a day, shaking the vessel, so that no part of it may be lost.

For Gunshot Wounds, take of comfrey leaves and root; sage, mugwort, bugloss, each four handfulls; betony, sanicle, ox-eye daisy, common daisy, greater figwort, plantane, agrimony, vervain, wormwood, fennel, each two handfulls; St. John's wort, birthwort, orpine veronica, lesser centaury, milfoil, tobacco, mouse-ear, mint, hyssop, each one handfull; wine 24 pounds. Having cut and bruised the herbs, pour on them the wine, and let them stand together in heat for three days. Afterward distill in an alembic with a moderate fire. This celebrated water has for some time been held in great esteem, in contusions, for resolving coagulated blood, discussing the tumors that arise on fractures and dislocations, for preventing the progress of gangrenes, and cleansing and healing ulcers and wounds.

Amongst the empyrical medicines the following is much cried up by many people as an infallible remedy: Take two ounces of the worts that grow dangling to the hinder heels of a stone horse, wash them in common water, then infuse them in white wine all night, and afterward let them be dried and reduced to powder. The dose is half a a dram twice a day, in any common vehicle. A dram of Venice soap given twice a day, either in pills be dissolved in some proper liquor, is likewise said to cure a Cancer.

Salvator Winter, an Italian of the city of Naples, Aged 98 years, Yet by the Blessing of God, finds himself in health and as strong as anyone of Fifty. . . . Which first he attributes to God, and then to his Elixir Vitæ, which he always carries in his pocket adayes, and at Night under his pillow; And when he finds himself distempered, he taketh a spoonful or two, according as need requireth. . . . Warranted to cure every evil under the sun, such as catarrh, sore eyes, hardness of hearing, toothache, sore throat, consumption, obstruction in the stomach, etc. . . . Salvator Winter, Junior, says: My father, aged 98 years, yet enjoys his perfect health, which . . . he attributes to the Elixir Vitæ, having alway a bottle in his pocket, drinking a spoonful thereof four or five times a day; snuffing it very strongly up his Nostrils, and bathing his Temples; thus by prevention, he fortifies his vital Spirit.

At the Sign of the Blew-Ball, at the upper end of Labour, in vain-Street, next Shadwell-New-Market, Liveth a Seventh Daughter, who learn'd her Skill by one of the ablest Physicians in England (her uncle was one of K. Charle's and K. Jame's twelve Doctors), who resolves all matter of Questions, and interprets Dreams to admiration and hath never fail'd (with God's Blessing) what she took in hand.

The Woman's Prophecy, or the Race and Wonderful Doctress, foretelling a Thousand strange monstrous things that shall come to pass before New Year's day next, or afterwards. She likewise undertakes to cure the most desperate Diseases, as the Glim'ring of the Gizzard, the Quavering of the Kidneys, the Wambling Trot, etc.